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**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Application No. : 10/808,648      Confirmation No.:**  
**Applicant(s) : Jody A. Swenson, et al.**  
**Filed : March 25, 2004**  
**TC/A.U. : 2858**  
**Examiner : A. Deb**  
**Title : ELECTRIC-FIELD METER HAVING**  
**CURRENT COMPENSATION**  
**Docket No. : 5837.041**  
**Customer No. : 30589**

**Mail Stop IDS**  
**Commissioner for Patents**  
**P.O. Box 1450**  
**Arlington, VA 22313-1450**

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

**List of Sections Forming Part of This  
Information Disclosure Statement**

The following sections are being submitted for this Information Disclosure Statement:

1.    ☒ Preliminary Statements
2.    ☒ Form PTO-1449 (Modified)
3.    ☐ Statement as to Information Not Found in Patents or Publications
4.    ☐ Identification of Prior Application in Which Listed Information Was Already Cited and for Which No Copies Are Submitted or Need Be Submitted
5.    ☐ Cumulative Patents or Publications

- 6.    ☒    Copies of Listed Information Items Accompanying this Statement
- 7.    ☐    Concise Explanation of Non-English Language Listed Information Items
  - 7A.   ☐    EPO Search Report
  - 7B.   ☐    English Language Version
- 8.    ☐    Translation(s) of Non-English Language Documents
- 9.    ☐    Concise Explanation of English Language Listed Information Items (Optional)
- 10.   ☒    Identification of Person(s) Making this Information Disclosure Statement

## **Section 1.            Preliminary Statements**

Applicants submit herewith patents, publications or other information of which they are aware, which they believe may be material to the examination of this application and in respect of which there may be a duty to disclose.

The filing of this information disclosure statement shall not be construed as a representation that a search has been made (37 C.F.R. § 1.97(g)), an admission that the information cited is, or is considered to be, material to patentability or that no other material information exists.

The filing of this information disclosure statement shall not be construed as an admission against interest in any manner. Notice of January 9, 1992, 1135 O.G. 13-25, at 25.

## **Section 2.            Form PTO-1449 (Modified)**

☒    A Completed Form PTO-1449 (Modified) is attached hereto.

**Section 3. Statement as to Information Not Found in Patents or Publications (Information Not Listed in Form PTO-1449(Modified))**

**Section 4. Identification of Prior Application in Which Listed Information Was Already Cited and for Which No Copies Are Submitted or Need Be Submitted**

This application relies, under 35 U.S.C. § 120, on the earlier filing date of prior application Serial No. 10/094,942, filed on March 14, 2002.

*(complete the following, if applicable)*

☐ This application also relies, under 35 U.S.C. 120, on the earlier filing date of prior application Serial No. \_\_\_\_\_, filed on \_\_\_\_\_ (date).

The following references were submitted to, and/or cited by, the Office in the prior application(s) and therefore, are not required to be provided in this application:

**Section 5. Cumulative Patents or Publications**

STATEMENT

\_\_\_\_\_ is cumulative of the following patents or publications listed on Form PTO-1449:

In accordance with 37 C.F.R. § 1.98(c), a copy of only \_\_\_\_ is being submitted with this Information Disclosure Statement.

**Section 6. Copies of Listed Information Items Accompanying this Statement**

Legible copies of all items listed in Form PTO-1449 (Modified) accompany this information disclosure statement.

☒ Exception(s) to above:

☒ [X] Items in prior application from which an earlier filing date is claimed for this application, as identified in Section 4.

☐ [ ] Cumulative patents or publications identified in Section 5.

## **Section 7. Concise Explanation of Non-English Language Listed Information Items**

### **Section 7A. Concise Explanation of Non-English Language Listed Information Items - EPO Search Report**

The relevance with respect to the following citations listed on Form PTO-1449:

is submitted on the basis of accompanying:

*(check the appropriate item)*

☐ [ ] EPO search report that is in the English language,

☐ [ ] EPO search report that is not in the English language and that is accompanied also by an English language version of the EPO search report,

that issued on the corresponding European patent application.

### **Section 7B. Concise Explanation of Non-English Language Listed Information Items - English Language Version of EPO Search Report**

## **Section 8. Translation(s) of Non-English Language Documents**

☐ [ ] Submitted herewith is an English translation of the following foreign language patents, publications or information or of those portions of those patents, publications or information considered to be material:

*(complete the following, if applicable)*

- ☐ No English language translations of the foreign language parents, publications or information or parts thereof are readily available, except for those listed above.
- ☐ The following foreign language documents submitted are believed to be the equivalent or substantial equivalent of the English language documents identified below, which are also submitted herewith.

**Section 9. Concise Explanation of English Language Listed Information Items (OPTIONAL)**

**Section 10. Identification of Person(s) Making this INFORMATION DISCLOSURE STATEMENT**

The person making this statement is the attorney who signs below on the basis of the information:

- ☐ supplied by the inventor(s)
- ☐ supplied by an individual associated with the filing and prosecution of this application (37 C.F.R. § 1.56(c)).
- ☒ in the attorney's file

Respectfully submitted,



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 Date Deposited: April 20, 2006



Substitute for form 1449A/PTO

# **SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

Complete if Known	
Application Number	10/808,648
Filing Date	03/25/2004
First Named Inventor	Jody A. Swenson
Group Art Unit	2858
Examiner Name	A. Deb
Attorney Docket Number	5837.041

(use as many sheets as necessary)

U. S. PATENT DOCUMENTS						
EXAM INIT.	Cite No. 1	<u>U.S. PATENT NUMBER</u> Number	Kind Code <sup>2</sup> (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM- DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AA	1919215		Gunn	07-25-1933	
	AB	2449068		Gunn	09-14-1948	
	AC	2587156		Havenhill et al.	02-26-1952	
	AD	2815483		Kaufman	12-03-1957	
	AE	2820947		Gunn	01-21-1958	
	AF	3121196		Kasemir	02-11-1964	
	AG	3188472		Whipple, Jr.	06-08-1965	
	AH	3273066		Ruhnke	09-13-1966	
	AI	3344344		Wales, Jr.	09-26-1967	
	AJ	3370225		Winder	02-20-1968	
	AK	3449668		Blackwell, et al.	06-10-1969	
	AL	3458805		Kasemir	07-29-1969	
	AM	3519927		Holt	07-07-1970	
	AN	3564529		Kaufman, et al.	02-16-1971	
	AO	3586973		Lawton, et al.	06-22-1971	
	AP	3611127		Vosteen	10-05-1971	
	AQ	3662250		Thomas, et al.	05-09-1972	
	AR	3727125		Mourier	04-10-1973	
	AS	3820095		Wojtasinski, et al.	06-25-1974	

## U. S. PATENT DOCUMENTS

EXAM INIT.	Cite No. 1	<u>U.S. PATENT NUMBER</u> Number	Kind Code <sup>2</sup> (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM- DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AT	3824454		Stern, et al.	07-16-1974	
	AU	3846700		Sasaki, et al.	11-05-1974	
	AV	3868074		Hill	02-25-1975	
	AW	3916605		Few, Jr.	10-26-1975	
	AX	3917996		Wagner, et al.	11-04-1975	
	AY	3919636		Few	11-11-1975	
	AZ	3921087		Vosteen	11-18-1975	
	BA	3925726		Few	12-09-1975	
	BB	3935532		Shuey, et al.	01-27-1976	
	BC	4054835		Los, et al.	10-18-1977	
	BD	4095221		Slocum, Jr.	06-13-1978	
	BE	4101825		Truax	07-18-1978	
	BF	4199715		Hill	04-22-1980	
	BG	4277745		Deno	07-07-1981	
	BH	4330749		Eda, et al.	05-18-1982	
	BI	4370616		Williams	01-25-1983	
	BJ	4422037		Coleman	12-20-1983	
	BK	4424481		Laroche, et al.	01-03-1984	
	BL	4433297		Buchheit	02-21-1984	
	BM	4506211		Coleman	03-19-1985	
	BN	4553099		Kasahara, et al.	11-12-1985	
	BO	4642559		Slough	02-10-1987	
	BP	4672305		Coleman	06-09-1987	
	BQ	4683436		Suzuki	07-28-1987	
	BR	4803421		Ostrander	02-07-1989	
	BS	4836581		Peterson, Jr.	06-13-1989	
	BT	5315232		Stewart	05-24-1994	

## FOREIGN PATENT DOCUMENTS

EXAM INIT.	Cite No. 1	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office 3	Number 4	Kind Code <sup>5</sup> (if known)				
			None					

**U.S. and Foreign:** <sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard St.3). <sup>4</sup> Form Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard St. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

EXAM INIT.	PATENT DOCUMENTS	
	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	
	CA	WILSON, C.T.R.; On a Portable Gold-leaf Electrometer for Low or High Potentials; Cambridge Philosophical Society; January 31, 1906; pp. 184-189; Vol. XIII, Part IV; Cambridge University Press.
	CB	WILSON, C.T.R.; On the Measurement of the Earth-Air Current and on the Origin of Atmospheric Electricity; Cambridge Philosophical Society; November 5, 1906; pp. 363-382; Vol XIII, Part VI; Cambridge University Press.
	CC	SIMPSON, GEORGE C.; Earth-Air Electric Currents; The London, Edinburgh, and Dublin Philosophical Magazine and Journal of Science; May, 1910; pp. 715-725; Sixth Series.
	CD	WILSON, C.T.R.; On Some Determinations of the Sign and Magnitude of Electric Discharges in Lightning Flashes; Proceedings of the Royal Society; Mathematical and Physical Sciences; June 3, 1916; pp. 555-574; Ser. A, Vol. 92, No. A 644.
	CE	WILSON, C.T.R.; Investigations on Lightning Discharges and on the Electric Field of Thunderstorms; August 27, 1920; pp. 73-115; Philosophical Transactions of the Royal Society of London; Ser. A, Vol 221.
	CF	WHIPPLE, F.J.W.; On the Association of the Diurnal Variation of Electric Potential Gradient in Fine Weather with the Distribution of Thunderstorms Over the Globe; Quarterly Journal of the Royal Meteorological Society; January, 1929; pp. 1-15; Vol. 55, No. 229.
	CG	WHIPPLE, F.J.W.; Potential Gradient and Atmospheric Pollution: The Influence of "Summer Time"; August 6, 1929; pp. 351-362.
	CH	WILSON, C.T.R.; Some Thundercloud Problems; Journal of the Franklin Institute; July, 1929; pp. 1-12; Vol. 208, No. 1; Lancaster Press, Inc.
	CI	KIRKPATRICK, PAUL and MIYAKE, IWAO; A Generating Voltmeter for the Measurement of High Potentials; The Review of Scientific Instruments; January, 1932; pp. 1-8; Vol. 3, No. 1.
	CJ	KIRKPATRICK, PAUL; Further Development of the Rotary Voltmeter; April 4, 1932; pp. 430-438.
	CK	GUNN, ROSS; Principles of a New Portable Electrometer; April 15, 1932; pp. 307-313; Vol. 40.
	CL	HARNWELL, G.P. and VAN VOORHIS, S.N.; An Electrostatic Generating Voltmeter; R.S.I.; October, 1933; pp. 540-541.
	CM	HENDERSON, JOSEPH E., GOSS, WILBUR H., ROSE, JOHN E.; The Use of the Rotary Voltmeter for Measurements up to 830 kilovolts; R.S.I.; March 1935; pp. 63-65; Vol. 6.
	CN	GUNN, ROSS; The Electricity of Rain and Thunderstorms; Terrestrial Magnetism & Atmospheric Electricity; 1935; pp. 79-106; Vol 40, No. 1.
	CO	VAN ATTA, L.C., NORTHRUP, D.L., VAN ATTA, C.M. and VAN DE GRAAFF, R.J.; The Design, Operation, and Performance of the Round Hill Electrostatic Generator; Physical Review; May 15, 1936; pp. 761-776; Vol. 49.



EXAM INIT.		<p style="text-align: center;"><b>PATENT DOCUMENTS</b></p> <p style="text-align: center;">Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published</p>
	CP	MACKY, W.A.; The Measurement of Normal Atmospheric-Electric Potential-Gradients Using a Valve-Electrometer; Terrestrial Magnetism and Atmospheric Electricity; March, 1937; pp. 77-86; Vol 42, No. 1.
	CQ	WORKMAN, E.J. and HOLZER, R.E.; A Recording Generating Voltmeter for the Study of Atmospheric Electricity; R.S.I.; May, 1939; pp. 160-163; Vol 10.
	CR	GUNN, ROSS; The Electrical Charge on Precipitation at Various Altitudes and its Relation to Thunderstorms; Physical Review; February 1, 1947; pp. 181-186; Vol. 71, No. 3.
	CS	WADDEL, R.C.; An Electric Field Meter for Use on Airplanes; The Review of Scientific Instruments; January, 1948; pp. 31-35; Vol. 19, No. 1.
	CT	SIMPSON, G.C.; Atmospheric Electricity During Disturbed Weather; Terrestrial Magnetism and Atmospheric Electricity; March, 1948; pp. 27-33; Vol. 53, No. 1.
	CU	MALAN, D.J., and SCHONLAND, B.F.J.; An Electrostatic Fluxmeter of Short Response-time for use in Studies of Transient Field-Changes; The Proceedings of The Physical Society, Section B; June 1, 1950; pp. 402-408; Vol. 63, Part 6, No. 366B.
	CV	CHALMERS, J. ALAN; Negative Electric Field in Mist and Fog; Journal of Atmospheric and Terrestrial Physics; 1952; pp. 155-159; Vol. 2; Pergamon Press Ltd., London.
	CW	CROSS, A.S.; Two Electrostatic Field-Meters; British Journal of Applied Physics; March, 1953; pp. S 47-S 50; Supplement No. 2.
	CX	CHALMERS, J. ALAN; The Agrimeter for Continuous Recording of the Atmospheric Electric Field; Journal of Atmospheric and Terrestrial Physics; 1953; pp. 124-128; Vol. 4; Pergamon Press Ltd., London.
	CY	SMITH, L.G.; An Electric Field Meter with Extended Frequency Range; The Review of Scientific Instruments; May, 1954; pp. 510-513; Vol. 25, No. 5.
	CZ	MAPLESON, W.W. and WHITLOCK, W.S.; Apparatus for the Accurate and Continuous Measurement of the Earth's Electric Field; Journal of Atmospheric and Terrestrial Physics; 1955; pp. 61-72; Vol. 7; Pergamon Press Ltd., London.
	DA	WHITLOCK, W.S. and CHALMERS, J. ALAN; Short-Period Variations in the Atmospheric Electric Potential Gradient; 1956; pp. 325-336.
	DB	CLARK, JOHN F.; Airborne Measurement of Atmospheric Potential Gradient; Journal of Geophysical Research; December, 1957; pp. 617-628; Vol. 62, No. 4.
	DC	JONES, O.C., MADDEVER, R.S. and SANDERS, J.H.; Radiosonde Measurement of Vertical Electrical Field and Polar Conductivity; Journal of Scientific Instruments; January, 1959; pp. 24-28; Vol 36.
	DD	VONNEGUT, B.; MOORE, C.B. and HARRIS, C.K.; Agrimeter for Measurement of Atmospheric Electrical Potential Gradient; Journal of Meteorology; 1961; pp. 812-815; Vol. 18.
	DE	COLLIN, H.L.; Sign Discrimination in Field Mills; Journal of Atmospheric and Terrestrial Physics; August, 1962; pp. 743-745; Vol. 24; Pergamon Press, London.
	DF	WINN, WILLIAM P., and BYERLEY, L.G., III; Electric Field Growth in Thunderclouds; Quarterly Journal of the Royal Meteorological Society; October, 1975; pp. 979-994; Vol. 101, No. 430.
	DG	THOMPSON, JAMES E.; KRISTIANSEN, M., and HAGLER, MARION O.; Optical Measurement of High Electric and Magnetic Field; IEEE Transactions on Instrumentation and Measurement; March, 1976; pp. 1-7; Vol. 25, No. 1.
	DH	TOLAND, R.B. and VONNEGUT, B.; Measurement of Maximum Electric Field Intensities Over Water During Thunderstorms; Journal of Geophysical Research; January 20, 1977; pp. 438-440; Vol 82, No. 3.
	DI	CUMMINGS, MARY R.; NICHOLSON, HOWARD W., JR. and PORTO, DEBORAH R.; Measurement of the Atmospheric Electrostatic Potential Gradient Near Sea Level; American Journal of Physics; December, 1981; pp. 1176-1180, Vol. 49, No. 12.
	DJ	VOSTEEN, JAMES R. and VOSTEEN, WILLIAM E.; The Feedback Vibrating Capacitor Fieldmeter; 1991; pp. 103.1 - 103.13.
	DK	MALAN, D.J.; Experimental Methods of Measuring the Potential Gradients of Thunderclouds; Physics of Lightning; pp. 37-104; The English Universities Press, Ltd., London.

EXAM INIT.	PATENT DOCUMENTS	
	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	
DL	GOTO, MIYOJI; A Newly Designed Differential Electrometer and its Application to the Simultaneous Measurement of Air Earth Current and Potential Gradient; pp. 22-23.	
DM	WILSON, C.T.R.; On the Ionisation of Atmospheric Air; 1901; pp. 151-161.	
DN	RUST, W. DAVID and MACGORMAN, DONALD R.; Techniques for Measuring Electrical Parameters of Thunderstorms; Instruments and Techniques for Thunderstorm Observation and Analysis; pp. 91-244.	
DO	NELSON, B.N.; MENZEL, C., and DIGIUSEPPE, T.G.; A Fiber-Optic Electric Field Sensor for Lightning Research.	
DP	Mission Instruments Co., Presents the EFS 1000 Field Mill.	
DQ	Lightning Detector Type VSL 1.	
DR	Atmospheric Research Systems, Inc.; Electric Field Mill.	
DS	Atmospheric Research Systems, Inc.; Electric Field Mill Network.	
DT	Monroe Electronics, Inc.; Reference Supply/Pulse Generator; Model 241.	
DU	Taylor, D.M.; Secker, P.E.; Industrial Electrostatics: Fundamentals and Measurements; 1994; Chap 4; pp 130-132	
Non Patent Documents: <sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.		
Examiner Signature:		Date Considered:
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